IN THE SPECIFICATION

Please amend the paragraphs of the specification as follows:

Please replace paragraphs [1027], [1037] and [1042] with the following amended paragraphs:

[1027] A primary way to uncorrelated two antennas is by physically separating the two antennas. Separation of the two antennas ~~the antennas~~ may decrease correlation because the signal paths from the transmitter to each of the antennas is different. Due to the different signal paths, the multipath signals, or multipath vectors, will add differently at each antenna. The multipath vectors represent the amplitude and phase of the received multipath signal. Thus, although the multipath vectors may add destructively, yielding a received signal that is much smaller, a deep fade, at one antenna, the multipath vectors at the other antenna will be different, producing a different summation that will not suffer from a fade at the same time.

[1037] In addition, highly correlated antennas do not have as high an "array gain" which is the ability to sum signals received from multiple antenna elements such that the desired signal is summed in phase, and interfering signals are summed incoherently. Typical interfering signals include neighboring base station signals, commonly called interferes, received by the antenna. A high array gain improves the ability of a receiver to reject interfering signals, and improves the receiver's ability to operate in a multipath environment. Conventionally, antennas designed to have high array gain and high diversity gain require the antenna elements <u>to</u> be [[to]] uncorrelated. Typically, this requires large separation between the antennas or antenna elements.

[1042] where Rs is the matrix formed by taking the outer-product of c with c-hermitian-conjugate. ~~Alternateively~~ <u>Alternatively</u>, $w = R^{-1}c$ will give a similar result.